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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,994

07/03/2003

Hiroshi Daiku

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21171

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12/15/2006

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EXAMINER

HANNETT, JAMES M

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,994

Applicant(s)

DAIKU ET AL.

Examiner

James M. Hannett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/3/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/3/2003, 1/25/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Solid-State image sensor capable of varying the storage time based on the detected flicker frequency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1: Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,710,818

B1 Kasahara et al.

2: As for Claim 1, Kasahara et al depicts in Figures (7, 16 and 17) A solid-state image sensor, comprising: plural pixels arrayed in a matrix (93) and storing charges in proportion to amount of incident light; and a gain variable amplifier (94) amplifying pixel signals sequentially read from the plural pixels at a fixed cycle time (frame rate), an amplification factor of which can be varied (AGC gain control signal), and being able to set a storage time during which the plural pixels store charges to an arbitrary value in a time range narrower than a period of the fixed cycle time (Column 16, Lines 52-58). Kasahara et al teaches on Column 17, Lines 8-42 a brightness/illumination flicker detection section detecting brightness and illumination flicker of

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an incident light image Figure (2b); and a control section (92) varying the amplification factor of the gain variable amplifier in accordance with the detected brightness and a set value of the storage time as well as varying the storage time step by step to either of plural flicker-less times at which the illumination flicker is not caused in accordance with the detected brightness and the illumination flicker (Column 16, Lines 10-65).

3: In regards to Claim 2, Kasahara et al depicts in Figure 17 and teaches on Column 16, Lines 14-67 and on Column 17, Lines 8-28 wherein the control section (92) sets the storage time to $n/100$ sec (n is a positive integer) when the illumination flicker detected by the brightness/illumination flicker detection section has a light emission period corresponding to the case where a fluorescent (Column 1, Lines 26-34) lamp is lit at 50Hz.

4: As for Claim 3, Kasahara et al depicts in Figure 17 and teaches on Column 16, Lines 14-67 and on Column 17, Lines 8-28 the control section (92) sets the storage time to $n/120$ sec (n is a positive integer) when the illumination flicker detected by the brightness/illumination flicker detection section has a light emission period corresponding to the case where a fluorescent (Column 1, Lines 26-34) lamp is lit at 60Hz.

5: In regards to Claim 4, Kasahara et al depicts in Figures 16 and 11 and teaches on Column 2, Lines 31-50, Column 10, Lines 14-19 and on Column 9, Lines 40-58 the brightness/illumination flicker detection section detects average luminance of the pixel signal for each frame in fixed average luminance detection areas (specified lines) assigned in a frame, calculates a difference in the average luminance between frames, and judges whether the illumination flicker is caused by a fluorescent Column 1, Lines 26-34) lamp lit at 50Hz or 60Hz from the calculated difference in the average luminance.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 5,239,369 Suzuki teaches the use of an image pickup apparatus used to correct for flicker; USPN 6,147,706 Inuiya et al teaches the use of a video camera capable of capturing video at different rates based on the frequency of ambient light; USPN 6,657,659 Van Rooy et al teaches the use of a flicker compensation mechanism for a camera.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Hannett whose telephone number is 571-272-7309. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett
Examiner
Art Unit 2622



JMH
December 11, 2006